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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,177	04/14/2004	Pablo Castro	Msft-3018/307735.01	6346

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EXAMINER

PANTOLIANO JR, RICHARD

ART UNIT	PAPER NUMBER
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2194

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/824,177	Applicant(s) CASTRO ET AL.	
	Examiner Richard Pantoliano Jr	Art Unit 2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.


Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20040414</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This is the initial office action for Application# **10/824,177** filed on **14 April 2004**.

Claims 1-29 are currently pending and have been considered below.

Claim Objections

2. **Claims 6 and 10** are objected to because of the following informalities:
 - a) **Claim 6**: this claim does not end with a period.
 - b) **Claim 10**: the claim recites "returns said database from" when it is the database results that are being returned.
3. Appropriate correction is required.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. **Claims 1-12** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.
6. Software constitutes "functional descriptive material". Functional descriptive material consists of data structures and computer programs which impart functionality when employed as a computer component. Functional descriptive material is non-statutory when claimed as descriptive material *per se*. *Warmerdam*, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-

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readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized.

7. **Claims 1-12** are clearly directed to components of a database system that can reasonably be interpreted in light of Applicant's specification to be directed entirely to software components. As such, the invention as claimed constitutes functional descriptive material *per se* and is, therefore, non-statutory.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. **Claims 1-11, and 13-28** are rejected under 35 U.S.C. 102(b) as being anticipated by Noble et al (US Pat: 5,822,585).

10. As per **Claim 1**, Noble et al discloses the invention substantially as claimed including a computer, comprising an asynchronous database Application Programming Interface ("API") (Col. 3, lines 36-55; Col. 4, lines 43 and Col. 11, lines 1-30).

11. As per **Claim 2**, Nobel et al further teaches an initialization method that is invoked by a client thread to request a database operation, wherein said initialization

method initiates a return communication with the client thread after the method is invoked without waiting for any external event (Col. 6, line 58-Col. 7, line 12; Col 10, lines 46-54; and Col. 11, lines 1-30) (The executing of the CallContext object by the agent object meets this claim limitation).

12. As per **Claim 3**, Nobel et al further teaches wherein said initialization method validates input parameters for a database operation (Col. 6, line 58-Col. 7, line 12) (The fact that the parameters are "strongly typed" means that the system checks to ensure that the parameters passed match up to the exact type that is required for the necessary operation, thereby meeting this claim limitation).

13. As per **Claim 4**, Nobel et al further teaches wherein said initialization method sets up a database operation by generating database instructions based on data passed to the initialization method (Col. 11, lines 1-39) (The "CallContext" object contains an "operation code" that is transmitted by the agent object with the appropriate data to the appropriate agent object on the server. Since the transmission of data requires the processing of said data to prepare it for said transmission, the claim limitation is met).

14. As per **Claim 5**, Nobel et al further teaches wherein said initialization method sends a request for an operation to a database server (Col. 6, line 58-Col. 7, line 12; Col 10, lines 46-54; and Col. 11, lines 1-30).

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15. As per **Claim 6**, Nobel et al further teaches wherein said return communication comprises an event object that can be signaled when a database operation completes (Col. 6, line 58 – Col. 7, line 13) (Messages are exchanged in the system via message objects, thereby meeting this claim limitation).

16. As per **Claim 7**, Nobel et al further teaches wherein said return communication comprises an object with a Boolean flag that can be signaled when a database operation completes (Col 11, line1 – Col 12, line 38).

17. As per **Claim 8**, Nobel et al further teaches a callback function for notifying a client thread when a database operation completes (Col 11, lines 1-55).

18. As per **Claim 9**, Nobel et al further teaches a finalization method that can be invoked by a client thread to obtain any results of a database operation (Col 11, line 30 – Col 12, lines 19) (The “Notify()” function meets this claim limitation).

19. As per **Claim 10**, Nobel et al further teaches wherein upon invocation said finalization method undertakes any final step in preparing database results for a thread and returns said database from a database operation to a thread (Col. 11, lines 1-65) (The “Notify()” method must retrieve the information from the CallBack object before the client can utilize said information, thus meeting this claim limitation).

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20. As per **Claim 11**, Nobel et al further teaches wherein the API provides an open connection method that allows a client application to open a database connection asynchronously (Col. 7 line53 – Col 8, line 5).

21. As per **Claims 13-20**, these claims are directed to the method of using the computer system of **Claims 1-11**, and are therefore rejected for the same reasoning as **Claims 1-11** above.

22. As per **Claims 21-28**, these claims are directed to the computer readable medium bearing instructions for executing the computer system of **Claims 1-11**, and are therefore rejected for the same reasoning as **Claims 1-11** above.

Claim Rejections - 35 USC § 103

23. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

24. **Claims 12 and 29** are rejected under 35 U.S.C. 103(a) as being unpatentable over Noble et al in view of Edwards et al (US Pat: 5,689,697).

25. As per **Claim 12**, Noble et al further discloses the system of **Claim 1** wherein the API provides a method that allows a client application to execute asynchronously (Col.

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6, line 58-Col. 7, line 12; Col 10, lines 46-54; and Col. 11, lines 1-30). Noble et al does not disclose wherein a Structured Query Language ("SQL") statement is executed by the client.

26. Edwards et al discloses wherein SQL statements are executed asynchronously by a client application (Col. 3, lines 26-53).

27. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the system disclosed by Noble et al with the teachings of Edwards et al. One would have been motivated by the fact that SQL is old and well-known as the preferred language for relational database systems (Edwards et al, Col 1, lines 46-55). In order to ensure that the system disclosed by Noble et al could be easily adapted to be utilized within database architectures utilizing well-known techniques, one would include support for the most popular method of implementing said architectures, the SQL language, within Noble et al's system.

28. As per **Claim 29**, this claim is rejected for the same reasoning as **Claims 12 and 21** above.

Conclusion

29. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Burger et al (US Pat: 5,097,533), Schmitz et al (US Pat: 5,544,318), Wright, Jr. et al (US Pat: 5,857,201), Woods et al (US Pat: 6,594,590),

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Lawrence et al (US Pat: 6,931,436), Clark et al (US Pat: 7,111,063), and Wolfson et al (US PGPub: 2004/0068479).

30. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Pantoliano Jr whose telephone number is (571) 270-1049. The examiner can normally be reached on Monday-Thursday, 8am - 4 pm EST.

31. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on (571)272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

32. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RP
2/12/07


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